STEENBAKKERS et al U.S. National Phase of PCT/NL2004/000879

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

- 1. (original) Process for removing a contaminant from contaminated groundwater, which process comprises the following steps:
 - a) a biologically active layer is applied on or in the soil
- b) the contaminated groundwater is contacted with the biologically active layer.
- 2. (original) Process according to claim 1, characterized in that the biologically active layer is applied discontinuously.
- 3. (currently amended) Process according to either of claims 1-2 claim 1, characterized in that the biologically active layer is of such depth that the lower part of the layer is located in the groundwater.
- 4. (currently amended) Process according to any one of claims 1-3 claim 1, characterized in that the contaminated groundwater is brought into or on top of the biologically active layer.
- 5. (currently amended) Process according to any one of claims 1-4 claim 1, characterized in that the contaminated groundwater is repeatedly contacted with the biologically active layer with the aid of a gas.
- 6. (currently amended) Process according to any one of claims 1-5 claim 1, characterized in that the contaminated groundwater is contacted with the biologically active layer by pumping.
- 7. (currently amended) Process according to any one of claims 1-6 claim 1, characterized in that the contaminated groundwater is contacted with the biologically active layer more than once.

STEENBAKKERS et al U.S. National Phase of PCT/NL2004/000879

- 8. (currently amended) Process according to any one of claims 1-7 claim 1, characterized in that the contaminant is readily soluble.
- 9. (currently amended) Process according to any one of claims 1-8 claim 1, characterized in that an electron acceptor is added during the process.
- 10. (currently amended) Process according to any one of claims 1-9 claim 1, characterized in that ammonia is nitrified to nitrate and subsequently nitrate is converted into N₂ through addition of a carbon-containing component.
- 11. (currently amended) Process according to any one of claims 1-10 claim 1, wherein the contaminant is NH₃ and which process comprises the following steps:
 - a) a biologically active layer is applied in or on the soil
- b) the contaminated groundwater is contacted under aerobic conditions with the biologically active layer whereby in the biologically active layer NH_3 is converted into NO_3
- c) step b) is repeated during a period of time that is needed to reduce the concentration of NH₃ to the desired level
- d) subsequently, the groundwater whose concentration of NH₃ has been reduced to the desired level is contacted with the biologically active layer under anaerobic conditions
- e) step d) is repeated during the period of time that is needed to reduce the concentration of NO₃ to the desired level.
- 12. (currently amended) Process according to any one of claims 1-11 claim 1, characterized in that a detergent is added.